at1110paper_practice_test (v0) DO NOT HAND IN

1. Expand the following expression into standard form.

$$(3x - 2)(9x - 7)$$

$$27x^2 - 21x - 18x + 14$$

$$27x^2 - 39x + 14$$

2. Solve the equation.

$$(8x + 7)(2x - 9) = 0$$

$$x = \frac{-7}{8} \qquad x = \frac{9}{2}$$

3. Expand the following expression into standard form.

$$(8x - 7)(8x + 7)$$

$$64x^2 + 56x - 56x - 49$$

$$64x^2 - 49$$

4. Expand the following expression into standard form.

$$(2x + 5)^2$$

$$4x^2 + 10x + 10x + 25$$

$$4x^2 + 20x + 25$$

5. Factor the expression.
$$x^2 - 5x - 14$$

$$(x - 7)(x + 2)$$

6. Factor the expression.
$$49x^2 - 16$$

$$(7x + 4)(7x - 4)$$

7. Solve the equation with factoring by grouping.
$$24x^2 + 20x + 18x + 15 = 0$$

$$(4x + 3)(6x + 5) = 0$$
$$x = \frac{-3}{4} \qquad x = \frac{-5}{6}$$

8. Solve the equation.
$$12x^2 - 28x + 11 = 5x^2 - 2x - 4$$

$$7x^2 - 26x + 15 = 0$$
$$(7x - 5)(x - 3) = 0$$
$$x = \frac{5}{7} \qquad x = 3$$